

REMARKS

The applicants have carefully reviewed the Office Action mailed October 16, 2008. The applicants have attached an Information Disclosure Statement, a translation of the foreign priority documents, and Replacement Sheets to this response.

The applicants have made several amendments to the Specification. The applicants have inserted the appropriate section headings on page 1 between the first and second paragraphs, on page 2 at line 23, on page 8 at line 4, on page 9, line 20, and on page 17 at line 1 as requested by the Examiner. The applicants have also added an ABSTRACT with the appropriate section heading on a new page beginning after page 21 of the application as filed. Support for the Abstract can be found, for example, in the original Specification and Claim 1. The applicants have also amended the paragraphs beginning on page 2, line 36, page 3, line 6, page 3, line 13, page 3, line 31, page 4, line 1, page 4, line 34, page 5, line 12, page 5, line 18, page 5, line 32, page 6, line 18, page 6, line 32, page 7, line 1, page 7, line 13, page 8, line 5, page 9, line 21, page 10, line 7, page 10, line 16, page 11, line 1, page 11, line 15, page 11, line 26, page 11, line 36, page 12, line 5, page 12, line 13, page 12, line 18, page 12, line 27, page 13, line 4, page 13, line 21, page 13, line 30, page 14, line 4, page 14, line 21, page 14, line 31, page 15, line 14, page 15, line 25, page 15, line 36, page 16, line 13, page 16, line 20, and page 16, line 33 to correct the use of brackets surrounding the term --printed-- as requested by the Examiner.

The applicants have made several amendments to the Claims. The applicants have amended Claim 19 to overcome the Examiner's objections for informalities. Additionally, the applicants have further amended Claims 5, 11, 12, 14, 17 and 19 – 22

to overcome the Examiner's rejections under 35 U.S.C. 112, second paragraph.

Support for the amendments can be found, for example, in the Specification as filed at page 4, lines 1-14, page 5, lines 18-23, page 15, lines 14-23, page 3, lines 13-19, and page 6, lines 14-16.

The applicants have made several amendments to the Drawings. The applicants have added reference numerals 2' to Fig. 1 and 3" to Fig. 3 to obviate objections made by the Examiner. Thus, Replacements Sheets 1 and 3 are attached to this Response.

Claims 1 – 22 are pending in this application. No prohibited new matter has been added. Favorable reconsideration of this application in light of the amendments and following discussion is respectfully requested.

#### Priority

The Examiner stated that the applicants cannot rely on the foreign priority papers to overcome this rejection because a translation of the papers has not been made of record in accordance with 37 CFR 1.55.

As noted by the Examiner, the present application claimed priority from German application number 102 17 034.7 filed April 11, 2002 in the preliminary amendment filed on October 8<sup>th</sup>, 2004. An English translation of this priority document is attached hereto and is hereby made of record in accordance with 37 CFR 1.55.

Information Disclosure Statement

The Examiner stated that the listing of references in the Specification is not a proper information disclosure statement under 37 CFR 1.98(b).

An information disclosure statement in accordance with 37 CFR 1.98(b) is attached hereto and is hereby made of record. Additionally, a copy of the non-patent document and the fee required by 1.97(c) have been submitted as part of the information disclosure statement filing.

Drawings

1. The drawings were objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate both the current collector and electrodes.

The term "electrodes" was deleted on page 10, line 8 and replaced with the term "current collector" which is consistent with the rest of the Specification. Thus, no amendments to the Figs. were required.

2. The drawings were objected to because of the distinction between the gas diffusion layer and the raised portion 13 is not clear in Fig. 4.

Respectfully, it is not clear to the applicants how a distinction between the gas diffusion layer 2 and the raised portion 13 is necessary in Fig. 4. Fig. 4 does not refer to the raised portion 13 or the gas diffusion layer 2. Fig. 4 only describes a schematic cross-section outside the membrane electrode assembly. Thus, the gas diffusion layer is not visible. However, as seen in Fig. 10, the raised portion 13 and the gas diffusion layer 2 are distinguished.

3. The drawings were also objected to under 37 CFR 1.83(a). The Examiner stated that the drawings must show every feature of the invention specified in the Claims. Specifically, Examiner stated that the segmented polymer electrolyte membrane design of Claim 15 and the plastic fabric with metallic segments of Claim 13 must be shown.

With respect to the segmented polymer electrolyte membrane, applicants have amended Fig. 3 and the Specification on page 11, line 36 by designating 3" to indicate the segmented polymer electrolyte membrane. With respect to the plastic fabric with metallic segments, applicants have amended Fig. 1 and the Specification on page 10, line 8 by designating 2' to indicate the plastic fabric.

#### Claim Rejections – 35 U.S.C. §112

Claims 5, 11, 12, 14, 17 and 19 – 22 were rejected under 35 U.S.C. 112, second paragraph as indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

1. The Examiner rejected Claim 5 for being indefinite because it was dependent upon itself.

Claim 5 has been amended to depend from Claim 4 to obviate the Examiner's rejection.

2. The Examiner rejected Claim 11 as being indefinite for failing to indicate which circuit board it is referring to from the plurality of circuit boards in Claim 1.

Claim 11 has been amended to specify the circuit boards to obviate the Examiner's rejection.

3. The Examiner rejected Claim 12 as being indefinite for failing to indicate which current collector it is referring to.

Claim 12 has been amended to obviate the Examiner's rejection by specifying that the current collectors are the same as those referred to in Claim 1.

4. The Examiner rejected Claim 14 as being indefinite for failing to use proper antecedent basis.

Claim 14 has been amended to obviate the Examiner's rejection by using the proper antecedent basis.

5. The Examiner rejected Claim 15 as being indefinite for failing to be clear on what claimed features the phrase "on these" is meant to encompass.

Respectfully, based on the reasons cited by the Examiner and the language of the Claims, it appears the Examiner was referring to Claim 17. Thus, the applicants have amended Claim 17 to obviate the Examiner's rejection.

6. The Examiner rejected Claim 19 as being indefinite and for failing to use proper antecedent basis. Specifically, the Examiner states that the body of the claim materially contradicts the preamble and that the recited limitation "the layer" does not have sufficient antecedent basis.

Claim 19 has been amended to obviate the Examiner's rejection by using proper antecedent basis with regard to "the layer" and by removing the contradictions in the preamble and the body of the claim.

7. The Examiner rejected Claim 20 as being indefinite for failing to use proper antecedent basis and for similar reasons detailed in rejecting Claim 19.

Claim 20 has been amended to obviate the Examiner's rejection by using proper

antecedent basis and by specifying the circuit board it referred to.

8. The Examiner rejected Claim 22 as being indefinite for failing to use the proper antecedent basis.

Claim 22 has been amended to obviate the Examiner's rejection by using proper antecedent basis by clarifying the number of reaction regions.

#### Claim Rejections – 35 U.S.C. §102

Claims 1-4, 8-12, and 18 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2004/0142227 (Sugai)

While applicants disagree that the invention defined in Claims 1-4, 8-12, and 18 is anticipated by Sugai, extensive arguments in this regard are unnecessary. The present application claims priority from German application number 102 17 034.7 filed April 11, 2002, a date prior to the filing date of Sugai. An English translation of this priority application is hereby made of record in accordance with 37 CFR 1.55. As a result, Sugai has been removed as a reference, and the rejection of claims 1-4, 8-12, and 18 under 35 USC §102 (e) must be withdrawn.

#### Claim Rejections – 35 U.S.C. §103

Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai as applied to Claim 4, and further in view of U.S. Patent No. 6,399, 232. Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai as applied to Claim 4, and further in view of U.S. Patent Application Publication No. 2004/0224190. Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai as applied to

Claim 3, and further in view of U.S. Patent No. 6,541,147 or U.S. Patent Application Publication No. 2004/0175606. Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai as applied to Claim 1, and further in view of either U.S. Patent No. 4,867,857, U.S. Patent No. 7,323,266 or U.S. Patent No. 5,863,671. Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai as applied to Claim 1, and further in view of either U.S. Patent Application Publication No. 2004/0115498, U.S. Patent Application Publication No. 2003/0044672 or U.S. Patent No. 5,989,741. Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sugai as applied to Claim 1, and further in view of either U.S. Patent No. 6,127,058 or U.S. Patent No. 5,863,672.

While applicants disagree that the invention defined in Claims 5-7, 13, 15, and 17 is obvious in view of the cited art, extensive arguments in this regard are unnecessary. The present application claims priority from German application number 102 17 034.7 filed April 11, 2002, a date prior to the filing date of Sugai. An English translation of this priority application is hereby made of record in accordance with 37 CFR 1.55. As a result, Sugai has been removed as a reference, and the rejection of Claims 5-7, 13, 15, and 17 under 35 USC §103 must be withdrawn.

#### Conclusion

In view of the foregoing remarks, favorable reconsideration of the present application and the passing of this case to issue with all claims allowed is respectfully requested.

Should the Examiner wish to discuss any aspect of this application, the applicant's attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,

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Date

By:   
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